

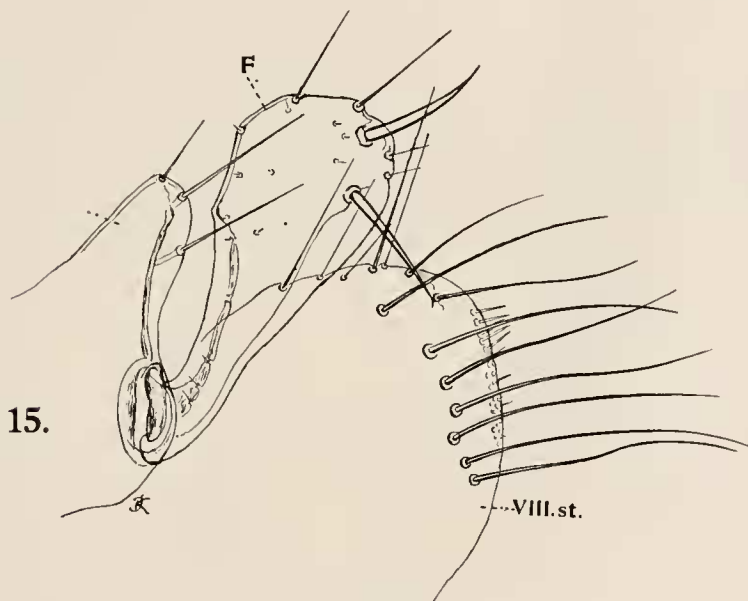
SIPHONAPTERA COLLECTED BY HERR GEORG STEIN IN THE
HIGH TATRA.

BY KARL JORDAN, PH.D., F.R.S.

(With 4 text-figures.)

1. *Amphipsylla thoracicus hetera* subsp. nov. (text-fig. 15).

♂♀. The ♀ does not present any differences from *A. thoracicus* Roths. 1911. In the ♂ the bristles of abdominal sternite VIII are slenderer and slightly more numerous and there are at the apex of this segment about twice as many minute pale spiniform bristles than in *A. th. sepifera* J. & R. 1920; manubrium of clasper gently curved upwards; process P narrower than in *A. th. sepifera*;

FIG. 15.—*Amphipsylla thoracicus hetera* ♂.

exopodite F apically more rounded on the posterior side and less evidently truncate; between the two pointed spiniforms only two small hairs. Total number of apical spines on abdominal tergites in ♂ 19, in ♀♀ 16; bristles on abdominal sternites in ♂ VI 10, VII 10, in ♀♀ VI 13 and 14, VII 19, on VIII. st. in ♂ 13 long lateral ones (on the two sides together).

Mlyniec valley, 2.x.29, on *Pitymys* sp., 1 ♂ (type), 2 ♀♀.

2. *Palaeopsylla steini* sp. nov. (text-figs. 17, 18).

♂♀. Very close to *P. kohauti* Dampf 1910, differing in the tail-ends.

♂. Clasper and exopodite practically the same as in *P. kohauti*, but the apical portion of ninth sternite (IX. st.) longer and much more gradually narrowed, not

subtruncate, the spiniforms more numerous. Armature of aedeagus (= penis plus accessory sclerites) remarkably different. We figure for comparison the aedeagus of *P. kohauti* (text-fig. 16, specimen from Misurina, Dolomites, the organ the same in specimens from other districts inclusive of Great Britain); the external paramere (Ext. Par.) surrounds the inner one (Int. Par.), its ventral apical angle (va) is produced downwards, and the distal margin subdorsally angulate, this angle projecting sometimes a little more than in our figure, sometimes less; the small tooth (or rather what appears as such in a lateral aspect) lying above the end-tube of the penis shorter in *P. kohauti* than in *P. steini*. The external (or lateral) paramere of

P. steini (text-fig. 17) is apically strongly

chitinized, truncate, with the dorsal angle produced into a strong hook and the ventral angle (va) rounded off, not produced downwards; the inner (or dorsal) paramere is more distal than the outer one and much shorter than in *P. kohauti*.

♀. Sternite VII varies a great deal, as shown in text-fig. 18, a-c, the two sides of the same specimen not even being quite alike; in all three examples we

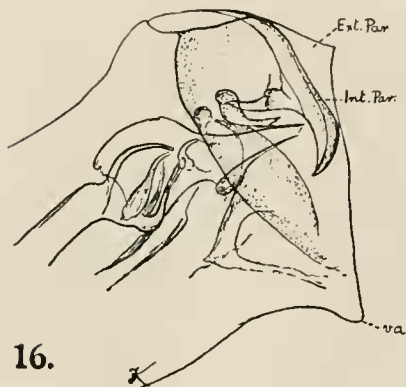


FIG. 16.—*Palaeopsylla kohauti* ♂.

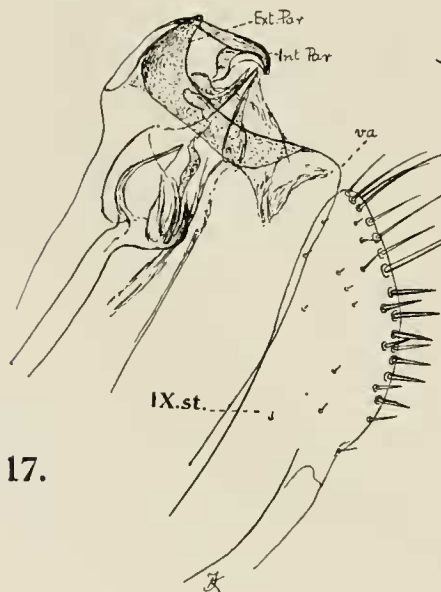


FIG. 17.—*Palaeopsylla steini* ♂.

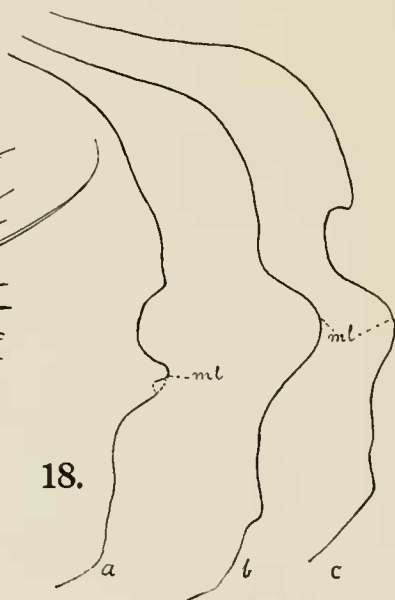


FIG. 18.—*Palaeopsylla steini* ♀.

have of this sex of *P. steini* the upper portion of the apical margin projects much less than in *P. kohauti*, the small median lobe (ml) projecting farther anad than the upper lobe, whereas in *P. kohauti* the dorsal lobe extends much beyond the apex of the median lobe.

Nove Stbske Pleso, ix.29, on *Talpa europaea*, 4 ♂♂, 3 ♀♀.

In the ♂♂ from the Dolomites and Swiss Alps sternite IX is less truncate than in Dampf's figure and than in British specimens. We have no topotypical material of *P. kohauti* (East Prussia). I expect Hungarian specimens to belong to *P. steini*, not to *P. kohauti*.

3. *Rhadinopsylla casta* Jord. 1928.

Stbske Pleso, 26.ix.29, on *Microtus agrestis*, 1 ♂.—Hitherto only known from Switzerland and the Dolomites. The specimen agrees well with the ♂♂ from the Dolomites (we have no Swiss ♂). Recorded from Lapland, anteà, p. 257.

4. *Ceratophyllus penicilliger* Grube 1852.

Stbske Pleso, 2.x.29, on *Pitymys* sp., a small series.

5. *Leptopsylla silvatica* Meinert 1896.

Stbske Pleso, 26.ix.29, on *Microtus agrestis*, a small series ; also on *Evotomys* sp., 30.ix.29, a small series.—Cf. anteà, pp. 254 and 256.

6. *Doratopsylla dasyncnemus* Roths. 1897.

Stbske Pleso, 29.ix.29, on *Sorex araneus*, a few specimens.

7. *Hystrichopsylla talpae* Curtis 1826.

Stbske Pleso, 26.ix.29, on *Microtus agrestis*, 1 ♂.
